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REDUNDANT UPDATABLE SELF-BOOTING FIRMWARE

ABSTRACT

A computer implemented method and a system for providing a
redundant, updatable, self-booting firmware program. A sectored,
5 non-volatile memory, having separately erasable sectors, stores
at least two copies of operational code, each in at least one of
the sectors separate from other of the copy sectors. Each
operational code copy has information indicating the relative
update level of the operational code copy, so that the copies may
10 be separately updated and have different update levels. A boot
program stored in at least one of the sectors of the non-volatile
memory, separate from the operational code sectors, operates a
processor to read the information from each of the copies to
determine the most recent update level of the operational code
15 copies, and executes the operational code copy having the most
recent update level. The boot program, prior to reading the
information, operates the processor to test the operational code
copies to determine whether any of the operational code copies is
corrupted, and only the header(s) of those copies determined to
20 be uncorrupted in the testing is read.

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